

PATENT  
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## DISPLAY RACK WITH SLIDABLE MEMBER

### **Related Applications**

This application claims priority from provisional patent application serial number  
5 60/154,907 entitled "Photo Album Bracket" filed September 21, 1999.

### Field of the Invention

The present invention relates to a rack for displaying objects, and more particularly to a rack for displaying objects having a slidable member for holding the objects in place.

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### Background of the Invention

Retail stores have a limited amount of space in which to display products or present them for sale. Many products are presented for sale by placing them on shelves, racks or the like. Racks having parallel rods that extend outwardly from a slatwall, pegboard or the like are known. These racks are used for selling items, such as photo albums, by placing a stack of items back to front in a vertical orientation on the parallel rods. However, as consumers take the items off the rack, and the number of items on the rack decreases, the items tend to slip and are not as presentable as when in a vertical orientation.

It is desirable to include a slidable member on the rack that holds the items in place.  
20 Devices that include parallel rods having slidable members thereon are known. For example, U.S. Patent No. 518,573 to Parker teaches a book rack having slidable dividers thereon for holding books in an upright position. U.S. Patent No. 2,912,151 to Crabs teaches a mail carrier that includes two parallel rods, a slidable member and a strap for securing the mail thereon. U.S. Patent No. 3,780,873 to Silva teaches a display rack for

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displaying packages. However, none of these racks are intended to be secured to a slatwall, pegboard or the like.

A long felt need exists for a rack that can be secured to a slatwall, pegboard or the like, wherein salable product can be displayed wherein as product is removed the remaining 5 items are held in a vertical orientation for presentation to consumers.

Summary of the Preferred Embodiments

In accordance with one aspect of the present invention there is provided a method of displaying products that includes the steps of providing a display rack, securing the 10 display rack to a substantially vertically oriented surface, placing at least one of the products on said display rack, and contacting a slideable carriage with the at least one product. In a preferred embodiment, the display rack includes a substantially horizontally oriented portion that forms a non-right angle with the substantially vertically oriented surface.

15 In accordance with another aspect of the present invention there is provided a display rack that includes a substantially horizontally oriented member having first and second opposite ends, a securing portion affixed to the second end of the substantially horizontally oriented member, and a carriage slidably engaged with the substantially horizontally oriented member. The securing portion including means for removably securing the rack 20 to a substantially vertically oriented surface. In a preferred embodiment the means for removably securing the rack to a substantially vertically oriented surface comprises at least one peg hook. In other preferred embodiments, the substantially horizontally oriented member forms a non-right angle  $\theta$  with the substantially vertically oriented surface, when removably secured thereto and at least a portion of the carriage extends above the 25 substantially horizontally oriented member.

In accordance with yet another aspect of the present invention there is provided a display rack including a pair of substantially horizontally oriented members in substantially

parallel spaced relation, a stop member associated with said first ends of said pair of substantially horizontally oriented members, a securing portion affixed to said second ends of said pair of substantially horizontally oriented members, and a carriage. The substantially horizontally oriented members each have first and second ends, the second ends of which are turned upwardly. The securing portion has at least one peg hook extending upwardly and rearwardly therefrom. The carriage includes a middle portion extending between and above the pair of substantially horizontally oriented members and a pair of engagement members that slidingly engage the pair of substantially horizontally oriented members.

Other objects, features and advantages of the present invention will become apparent to those skilled in the art from the following detailed description. It is to be understood, however, that the detailed description and specific examples, while indicating preferred embodiments of the present invention, are given by way of illustration and not limitation. Many changes and modifications within the scope of the present invention may be made without departing from the spirit thereof, and the invention includes all such modifications.

#### Brief Description of the Drawings

The invention may be more readily understood by referring to the accompanying drawings in which

FIG. 1 is a perspective view of a display rack and a peg board in accordance with a first embodiment of the present invention.

FIG. 2 is a top elevation of the display rack of FIG. 1.

FIG. 3 is a bottom elevation of the display rack of FIG. 1.

FIG. 4 is a rear elevation of the display rack of FIG. 1 with a portion of the display rack in section taken along line 4--4 of FIG 1.

FIG. 5 is a side elevation of the display rack of FIG. 1 showing the angle  $\theta$ .

FIG. 6 is a perspective view of a display rack and a peg board in accordance with a second embodiment of the present invention.

FIG. 7 is a perspective view of a display rack removably secured to a peg board and having photo albums displayed thereon.

5 FIG. 8 is a perspective view of a display rack removably secured to a peg board and having photo albums displayed thereon, where one of the photo albums has begun to slip and is stopped by the carriage.

Like numerals refer to like parts throughout the several views of the drawings.

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#### Detailed Description of the Preferred Embodiments

With reference generally to FIGS. 1-6, a first embodiment of a display rack 10 is shown. The rack 10 generally includes a substantially horizontally oriented portion, that includes first and second elongated members 12,14; a carriage 16; and a securing portion 18. It will be appreciated that terms such as "vertically," "horizontally," "upper," "top" and 15 "downwardly" used hereinbelow are used merely for ease of description and refer to the orientation of the components as shown in the Figures. It should be understood that any orientation of the display rack described herein is within the scope of the present invention.

Preferably, first and second elongated members 12, 14 are in substantially parallel spaced relation (as best shown in FIG. 3). Secured to a first end 12a,14a of the first and 20 second elongated members 12,14 is a stop member 20, and secured at the second end 12b,14b (opposite end) is the securing portion 18. As shown in FIG. 1, the securing portion 18 preferably includes a plate 22 having means for removably securing the display rack to a merchandising display panel (described below). The means for removably securing the display rack to a merchandising display panel can include hooks, clamps, pegs, 25 magnets, adhesive or any other means for securing known in the art. Preferably, the plate 22 includes peg hooks 24 extending upwardly and rearwardly therefrom. The securing

portion 18 can also include the second ends 12b,14b of the first and second elongated members 12,14 being connected and having peg hooks or the like extending therefrom.

In a preferred embodiment, as shown in FIGS. 1 and 2, the second ends 12b,14b of the first and second elongated members 12,14 are turned upwardly, and the securing portion 18 is secured thereto by welding, adhering or other known securing method. In an alternative embodiment the second ends 12b,14b of the first and second elongated members 12,14 are not turned up, and the securing portion is secured to the ends or a top surface thereof. The elements of the securing portion 18 (the plate 22, and the peg hooks 24) can be formed as a unit, or the peg hooks 24 can be affixed to the plate 22. In a preferred embodiment the securing portion 18 includes four peg hooks 24, however, any number of peg hooks is within the scope of the present invention.

As shown in FIG. 4, the first and second elongated members 12,14 preferably have a round transverse cross-section. However, they can be any geometric shape, such as square, rectangular, etc. In a preferred embodiment, the first and second elongated members 12,14 include elongated flat members 26,28 affixed to a top surface thereof. The elongated flat members 26,28 have first and second opposite ends 26a,28a,26b,28b, the first ends of which are preferably turned up and have the stop member 20 affixed thereto. As with the securing portion 18, the stop member 20 can also be affixed to the ends or top surface of the first and second elongated members 12,14 or the elongated flat members 26,28. The securing portion 18 and the stop member 20 are therefore located adjacent opposite ends of the first and second elongated members 12,14 and the elongated flat members 26,28 and are substantially vertically oriented.

Preferably, the carriage 16 includes a middle portion 30 and two engagement members 32. The engagement members 32 slidably engage the first and second elongated members 12,14 and the elongated flat members 26,28 as shown in FIG. 3. The middle portion 30 extends above the first and second elongated members 12,14. As shown in FIG. 6, in a second embodiment, the elongated flat members 26,28 may be omitted and the

engagement members 32 may slidably engage the first and second elongated members alone. In this embodiment, stop member 20 is comprised of the first ends 12a,14a of the first and second elongated members 12,14, which are turned upwardly and inwardly to form a unitary piece (see FIG. 6). Furthermore, in this embodiment, the engagement members 32 are tubular in shape for engagement with the round first and second elongated members 12,14.

The components of the display rack 10 are comprised of a rigid material such as steel or other metal, a strong plastic or the like. The elements of the display rack 10 can be formed as a unit, or the separate elements can be formed as separate pieces and affixed to one another.

The display rack 10 is intended to be used with a merchandise display panel or similar display. The display can be a pegboard or other perforated board, a wire grid merchandising panel, a slatwall merchandising panel or any other display panel known in the merchandising art. As described herein, the display rack 10 is used to display photo albums 110, and is removably secured to a pegboard 100 that includes a plurality of apertures 102 defined therein, however, it will be understood that this is not a limitation on the present invention.

Referring to FIGS. 7-8, in operation, the peg hooks 24 are received in some of the apertures 102 in the pegboard 100 (or the slots in a slatwall, or the openings in a wire grid merchandising panel). The plate 22 of the securing portion 18 contacts the peg board 100 causing the first and second elongated members 12,14 to extend outwardly from the pegboard 100. Preferably, the display rack 10 is fabricated such that the first and second elongated members 12,14 (and the entire substantially horizontally oriented portion) form an angle  $\theta$  (as shown in FIG. 7) with a plane normal to the pegboard 100 (and the plate 22). In other words, the substantially horizontally oriented portion forms a non-right angle with the pegboard. In a preferred embodiment,  $\theta$  is between  $1^\circ$  and  $20^\circ$ . In a more

preferred embodiment,  $\theta$  is between  $3^\circ$  and  $10^\circ$ . Any value for  $\theta$  is within the scope of the present invention.

The photo albums 110 are placed on the elongated flat members 26,28, between the securing portion 18 and the carriage 16, as shown in FIG. 7 (or on the first and second 5 elongated members 12,14 directly, as in the embodiment shown in FIG. 6). The angle  $\theta$  of the first and second elongated members 12,14 biases the photo albums 110 toward the pegboard 100 so that they are prevented from falling forward. The angle  $\theta$  also pre-loads or pre-stresses the first and second elongated members 12,14, as the photo albums are heavy and may cause the first and second elongated members 12,14 to flex downwardly. 10 As photo albums 110 are removed from the rack 10, the carriage 16 is urged against the forwardmost photo album 110 either by a person or by gravity due to the angle  $\theta$  of the first and second elongated members 12,14.

Preferably, the engagement members 32 are fit onto the first and second elongated members and/or elongated flat members 26,28 such that there is enough "play" that when 15 the forwardmost photo album 110 begins to slide, the engagement members 32 lock against the first and second elongated members and/or elongated flat members 26,28, thus preventing the photo album 110 from slipping any further as shown in FIG. 8

It will be understood that the display rack generally includes a portion for securing the rack to a merchandising display panel, an elongated substantially horizontally portion 20 for supporting salable product and a carriage slidably engaged with the elongated substantially horizontally portion. The embodiments of the present invention recited herein are intended to be merely exemplary and those skilled in the art will be able to make numerous modifications to them without departing from the spirit of the present invention. For example, the rack 10 can include more than two horizontal members or more than one 25 carriage; the horizontal portion can be a single flat piece that is engaged by the carriage, instead of multiple parallel members; the stop portion 20 can be omitted; the elongated flat members can be omitted; the display rack can include rails or side walls for holding the

items in place; the display rack can be permanently affixed to the wall, pegboard or other vertically oriented surface; the peg hooks 24 can be a single long piece for engaging a slatwall or the carriage 16 can include a spring or other resilient member that biases it against the salable products. All such modifications are intended to be within the scope of  
5 the present invention as defined by the claims appended hereto.